

| توجهات البحث Research Domains | الموضوعات Subjects | الأنشطة العلمية المصاحبة Associated Scientific Activities | الفترة الزمنية المقترحة Proposed Time Period | المسئول عن التنفيذ Responsible for Implementation |
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| a. Biodental science, biomaterials and dental biotechnology | <ul style="list-style-type: none"> - Nano technology in all dental materials , tissue engineering modifications of adhesives and bioceramics. - Biological evaluation as obtained from in vivo and in vitro studies. - Evaluation of the physical chemical and biomechanical properties of the tooth structure and endodontic materials especially those with nanostructure. - Fracture resistance & Bond strength of endodontic materials. - Nano technology in metals, ceramics, cements and recent advanced ceramics. - Nanotechnological developments in material fillers, composition and testing methodology. - Clinical comparative studies testing recently developed materials and prophylactic measures. - Clinical comparative studies evaluating the most recent development in tooth cutting and material application. - End crowns , inlay, only , occlusal veneers (designs of materials used). | <ul style="list-style-type: none"> - إقامة حلقات دراسية Seminars and Journal Club - ورش عمل Workshops - أبحاث علمية Scientific researches - نشر علمي Scientific publication | خمس سنوات | رئيس القسم وأعضاء هيئة التدريس |
| b. Diagnostic research modalities | <ul style="list-style-type: none"> - Evaluation of the specificity & sensitivity of recent radiographic modalities used in evaluation. - Evaluation of the specificity & sensitivity of recent pulp testing modalities. | <ul style="list-style-type: none"> - إقامة حلقات دراسية Seminars and Journal Club - ورش عمل Workshops - أبحاث علمية Scientific researches - نشر علمي | خمس سنوات | رئيس القسم وأعضاء هيئة التدريس |

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| | <ul style="list-style-type: none"> - Testing the most advanced equipment and materials related to diagnosis of early stages of demineralization and tissue denaturation based on radiology, ultrasound, ultrasonic and chemical agents. | Scientific publication | | |
| c. Research advancement in treatment of oral and paraoral disease | <ul style="list-style-type: none"> - Evaluation long term prognosis of different endodontic treatment modalities. | <ul style="list-style-type: none"> - إقامة حلقات دراسية Seminars and Journal Club ورش عمل Workshops - أبحاث علمية Scientific researches - نشر علمي Scientific publication | خمس سنوات | رئيس القسم وأعضاء هيئة التدريس |
| d. Research advancement in conservative dentistry | <ul style="list-style-type: none"> - Employing new technology in preparing nano particles, research LAB, CAD/CAM, LASER and new implant designs - Evaluation of the physical properties of different posts and core materials - Evaluation of the different posts and core materials and their bond strength with the different root canal sealers. - Endocrowns, inlays, onlays and oclusal veneers. - Testing and development of biomimetics used in adhesive dentistry. - Stem cells and tissue engineering related to the formation of enamel and dentin. - Clinical application of the DSD theory in esthetic dentistry. - Evaluating the clinical application of the most recent conservation philosophies. | <ul style="list-style-type: none"> - إقامة حلقات دراسية Seminars and Journal Club ورش عمل Workshops - أبحاث علمية Scientific researches - نشر علمي Scientific publication | خمس سنوات | رئيس القسم وأعضاء هيئة التدريس |
| e. Multidisciplinary | <ul style="list-style-type: none"> - Long term prognosis of endodontic periodontal lesions | <ul style="list-style-type: none"> - إقامة حلقات دراسية Seminars and Journal Club | خمس سنوات | رئيس القسم وأعضاء هيئة التدريس |

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| research approach | <ul style="list-style-type: none"> - Evaluation of periapical healing in relation to newly introduced root end filling materials. - Recent designs for oral rehabilitation. - Multidisciplinary research related to the most recent techniques of endodontic obturation in collaboration with conservative dentistry. - Contributing to the development of new modalities in fixed prosthodontics. - Multidisciplinary development of tooth structure by tissue engineering. | <ul style="list-style-type: none"> Workshops ورش عمل - أبحاث علمية Scientific researches - نشر علمي Scientific publication | | التدريس |
| f. Research advancement in maxillofacial development and orthodontics | - | - | - | - |
| g. Recent advances in prosthodontic research | <ul style="list-style-type: none"> - Recent designs, materials and technology | <ul style="list-style-type: none"> - إقامة حلقات دراسية Seminars and Journal Club Workshops ورش عمل - أبحاث علمية Scientific researches - نشر علمي Scientific publication | خمس سنوات | رئيس القسم وأعضاء هيئة التدريس |

رئيس قسم علاج الأسنان التحفظي

أ.د. يحيى محمود البغدادي